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21293 BC M. Lepstorff, IRD/NES/DR III. INDUSTRIAL BRANCH PROFILES

A. FOOD PROCESSING, BEVERAGES AND TOBACCO INDUSTRIES

Status

The food processing, beverages and tobacco industries include meat and meat products, processed fruits and vegetables, edible oil, macaroni and spaghetti, bread and biscuits, sugar and candy, alcohol, soft drinks as well as cigarettes. The production capacities employed to manufacture these and other products are given in Table III-1.

<u>Table III-1</u>

Production Capacities of Food Processing, Beverages and Tobacco Industries

Product	Unit of	Annual
	Measure-	Production
	ment	Capacities
1. Meat products	tonnes	21,700
2. Processed fruits & vegetables	tonnes	6,300
3. Milk	hectolitres	210,000
4. Milk products	tonnes	1,100
5. Edible oil	tonnes	15,000
6. Oil cakes	tonnes	42,000
7. Flour	tonnes	263,400
8. "Fafa" products (Baby food)	tonnes	20,400
9. Macaroni & spaghetti	tonnes	25,000

Products	Units of	Annual
	Measure-	Production
	ment	Capacities
10. Bread, galetta & biscuits	tonnes	77,500
11. Sugar & candy	tonnes	205,000
12. Molasses	tonnes	71,000
13. Animal feed	tonnes	43,000
14. Beer	hectolitres	700,000
15. Wine	hectolitres	140,000
16. Alcohol & liquors	hectolitres	£0,000
17. Lemonade (soft drinks)	hectolitres	110,000
18. Mineral water	hectolitres	341,000
19. Malt	tonnes	15,000
20. Cigarettes	'000pcs	3,725,000

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Although both public and private enterprises are engaged in producing the above products, most of the products are manufactured by state enterprises.

Of the 20 major enterprises in these industrial branches, 13 are engaged in food processing. They include seven flour mills and flour based plants, two sugar estates, two meat processing plants, one fruit and vegetable processing plant and one milk processing plant.

Of the six major enterp ises engaged in the

manufacturing of beverages, four are breweries, while the remaining two are a soft drink bottling company and a mineral water bottling plant. The tobacco manufacturing industrial enterprise is the only one of its kind in the country. Annual production capacity, and location of the major enterprises in the sector are given in Table III-2.

Table III-2

Major Enterprises in the Food Processing, Beverages and Tobacco Industries

Name of Enterprise	Location	Annual Capacity
1. Ada Flour & Pasta Factory	Debre Zeit Town	45,000 tonnes of wheat
2. Kokeb Flour & Pasta Factory	Central Region, Addis Ababa	15,000 tonnes of oil seeds
3. Awasa Flour Mill	Awasa Town, Southern Region	36,000 tonnes of wheat
4. Bahr Dar Edible Oil Mill	Bahr Dar Town, Northern Region	15,000 tonnes of oil seeds
5. Faffa Food Factory	Addis Ababa	
6. Kaliti Food Products Ectory	Addis Ababa	40,000 tonnes of wheat
7. Debre Zeit Maize Mill	Debre Zeit Town, Central Region	36,000 tonnes of wheat
8. Ethiopian Livestock & Meat Enterprise	Wendo Town, Southern Region	80,000 heads of cattle per day
9. Sopral Combolcha Meat Factory	Combolcha Town, Northern Region	82,500 heads of cattle per day

Name of Enterprise	Location	Annual Capacity
10. Ethiopian Fruit & Vegetable Marketing Enterprise	Merti Jejju Town, Central Region	40,000 tonnes of fruits
ll. Dairy Development Enterprise	Addis Ababa	50,000 litres of milk per day (processing)
12. Metahara Sugar Factory	Metahara Town, Central Region	120,000 tonnes sugar
13. Wonji/Shoa Sugar Factory	Near Nazareth Town, Central Region	80,000 tonnes sugar
14. St. George Brewery	Addis Ababa	200,000 hectolitres
15. Metta Brewery	Near Sabbata Town, Suburb of Addis Ababa	320,000 hectolitres
16. Harar Brewery	Harar Town, Eastern Region	200,000 hectolitres
17. Beddele Brewery	Beddele Town, South West Region	250,000 hectolitres
18. Abbay-Mesk Soft Drinks Factory	Addis Ababa	144 million bottles of 300 cc
19. Ambo Mineral Water Factory	Ambo Town, Central Region	167 million bettles of 650 cc
°0. Addis Ababa Cigarette Factory	Addis Ababa	2.5 billion cigarettes

Most of the enterprises in the food processing industrial sub-sector, including those owned by the State, are engaged in producing flour and edible oil, and hence the kind of industrially processed local food products is quite limited. Moreover, the sugar enterprises are the only largescale plants in the sub-sector; the majority are small-scale in size.

In the beverages industry, breweries are the dominant enterprises. As shown in Table III-2, there are four breweries with a total annual capacity of about 970,000 hectoliters.

All of the major enterprises, including the breweries, are owned by the State. Private enterprises are mostly small scale oil mills, flour mills and bakeries.

Most of the food processing, beverages and tobacco industries are located in Addis Ababa and the nearby towns. However, state enterprises established during the past decade are found in places far from Addis Ababa such as Beddele in the south-west and Bahir Dar in the north.

The gross value of production of the industries was Birr 1,185 million in 1992/93 fiscal year. Compared to the total gross value of production of the manufacturing industry in the same year, the share of these industries was about 44%.

The Resource Base

The food processing, beverages and tobacco industries are agro-based industries. Most of the major raw materials of these industries are locally available. However, owing to the underdevelopment of agriculture, especially commercial farming, which was monopolized by the

State during the past two decades, there is a big shortage of some of the raw materials such as wheat. The quantity of major raw materials consumed by the food processing, beverages and tobacco industries during the 1992/93 fiscal year is shown in Table III-3.

ذ-Table III

<u>Major Raw Materials Consumed by Food Processing,</u> <u>Beverages and Tobacco Industries During 1992/93 Fiscal Year</u>

Major Raw Materials	Units of	Qua	ntity Consu	med
	Measurement	Local	Import	Tutal
1. Cattle	Head	6,345	-	6,345
2. Meat	Tonnes	431	-	433
3. Pulses	IT.	2,239	-	2,239
4. Vegetables	u,	8,893	-	8,893
5. Edible oil	H	871	-	873
6. Flour	17	18,115	411	18,526
7. Wheat	17	69,480	5,118	74,598
8. Maize	ur ,	2,029	-	2,029
9. Milk (raw)	Hectolitres	21,792	-	2.,792
10. Milk (powder)	Tonnes	52	62	114
11. Oil seeds	17	35,647	-	35,641
12. Sugar cane	('000 tonnes)	1,274	-	1,274
13. Sugar	Tonnes	1,808		., 308
14. Glucose	11		19	η¢

Major Raw Materials	Units of	Qua	ntity Consu	med
	Measurement	Local	Import.	Total
15. Alcohol	Hectolitres	1,174	-	1,174
16. Carbon dioxide	Tonnes	1,160	-	1,160
17. Essence	11		240	240
18. Grapes & resins	17	50	78	128
19. Hops	١٢	-	155	155
20. Malt	17	5,821	3,959	۶, 780 [,]
21. Molasses	57	10,966	-	10,966
22. Harely	11	103,930	-	103,930
23. Tobacco & leaves	ĮŦ	1,188	646	1,834

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Recent Trends

The gross value of production during the past five years (i.e. between 1988/89 to 1992/93) decreased from Birr 1,260 million in 1988/89 to B rr 1,185 million in 1992/93. This trend was mainly observed in the food processing industry, especially in the meat, fruit and vegetables processing and dairy products industrial branches; the major causes being attributed to market and organizational problems.

The major export products in these industries are food products, meat (canned and frozen), oil cakes, sugar, molasses, and fruit and vegetables. Similarly, the value of exports of these industries decreased sharply from Birn 22 million in 1988/89 to about Birr 8 million in 1992,001. A number of large-scale food processing projects are under construction by the State. The projects include the Addis-Modjo Edible Oil Complex. Hammaressa Oil Mill, Dire Dawa Food Complex and Finchaa Sugar Factory. With the exception of Finchaa Sugar Factory, which may take three more years for completion, all the projects are near completion and may start production before the end of 1995.

The design capacities of these projects are larger than most of the existing plants. For instance, the capacity of Addis-Modjo Edible Oil Complex is about 300 tonnes of oil seeds per day. This is more than the combined capacity of the ten existing oil mills. The processing capacity of Finchaa Sugar Factory is 4000 tonnes of cane per day with a provision to expand the capacity to 6000 tonnes of cane per day. It is expected that when these projects are completed and start full scale operation, the gross value of production of the food, industries beverages and tobacco would increase very significantly.

Before October 1992, the state enterprises in the food, beverages and tohacco sub-sectors were managed under six legally organized corporations namely Ethiopian Meat & Corporation, Livestock Development Ethiopian Fruit & Development Corporation, Et hiopian Food Vegetables Corporation, Ethiopian Sugar Corporation, Ethiopian Beverages Corporations and National Tobacco and Matches Corporation. In August 1992, the Transitional Government of Ethiopia issued a proclamation dissolving the corporations and making the state enterprises under these corporations autonomous to be managed The board of management of each by management boards. enterprise consists of a total of six members four of whom are appointed by the Government and the remaining two elected by enterprises themselves. work rs of the: This new the organizational arrangement has shown positive results in most

of the enterprises.

<u>Constraints</u>

Three major problems affect the efficient operation of most of the enterprises in these industrial sub-sectors: overmanning, lack of experience in operating in competitive markets and difficulties in retaining foreign markets.

Overmanning is the problem of almost all state enterprises and is caused by the policy of the previous regime which favoured employment without taking account of the profitability of an enterprise. Lack of experience in competitive markets is also due to the centrally planned/controlled economic policy of the previous regime which separated the manufacturer from the market and gave the job of marketing to state-owned wholesaling and retailing companies.

The problem of retaining foreign markets is mainly pronounced in the agro-industries producing meat, vegetable and fruit products. These enterprises used to export a large portion of their products some years back but are now finding it difficult even to achieve their previous export volumes due to stringent health and sanitation requirements on the part of the importing countries and increasing competition from other countries.

Prospects for Further Development

Ethiopia is an agricultural country with a big potential for development. Although about 65% of the country's total area is arable land, only 15-20% of this land is under cultivation at present. The water resources of the country are also very vast, but only a small proportion is used for irrigation and electricity.

Almost all of the major raw materials for the food, beverages and tobacco industries come from the agricultural sector. Thus, the development of these industries is closely linked with the development of agriculture. Cognizant of this fact, the Ethiopian Government has taken a number of measures to increase agricultural productivity. To that effect, it has allowed the farmer to sell all his products on a free market. It has also encouraged the peasants to use extensively agricultural inputs such as fertilizers and select seeds. ln addition, the Government has allowed investors to develop land that were not occupied by peasants. These measures are already bearing fruit and it is expected that there would be significant development of the agriculture sector in the coming years. This would surely increase the raw material supply for the food, beverages and tobacco industries.

The population of Ethiopia is estimated at more than be million, and the annual growth rate of the population is about 3%. This would obviously increase the domestic demand for food and beverages at a considerable rate. Given the country's proximity to the large Middle East market, and Ethiopia being a member of COMESA, the export potential for food and beverage products is also very significant.

B. THE TEXTILE AND FIBRE INDUSTRY

Status

The main products manufactured in the Ethiopian textile and fibre industry are cotton fabrics, nylon fabrics, acryl c yarn, cotton yern, woolen and waste cotton blankets, carpets, gunny and polypropylene bags, hosicries and sewing thread. The production capacities employed to manufacture

these products are shown in Table III-4.

Product	Unit of Measure	Annual production Capacity
1. Cotton fabrics	' 000m²	140,000
2. Nylon fabrics	' 000m²	8,100
3. Acrylic yarn	tonnes	940
4. Cotton yarn	tonnes	16,000
5. Blanket (woolen)	pcs	660,000
6. Blanket (waste cotton)	pcs	1,160,000
7. Carpets	m²	56,000
8. Gunny bags	'000 pcs	20,000
9. Hosieries	dozen	1,111,300
10. Sewing thread	tonnes	260

<u>Table III-4</u> <u>Production Capacities of Main Textile Products</u>

Most of these products are manufactured by state owned enterprises. The major enterprises in the sub sector are Akaki Textiles Factory, Dire Dawa Textiles Factory, Bahir Dar Textiles Factory, Debre Berhan Wool Factory, Combolcha Textiles Factory, Ethio-Japanese Synthetic Textiles Factory, Awara Textiles Factory and Arba Minch Textiles Factory. All of the above enterprises except Ethio-Japanese Synthetic Textiles Factory are owned by the State. Ethio-Japanese Synthetic Textiles Factory is a share company jointly owned by the Government of Ethiopia and two Japanese companies, Toray & Mitsubishi. Privately owned enterprises consist mainly of knitting mills producing knitted products and hosieries.

Geographically, the major textile enterprises are dispersed throughout the country. Most of the plants are located in the towns from which they took their names. Three of the major enterprises are located in the northern, two in the southern, one in the eastern, and two in the central part of the country. Basic information such as annual capacity, employment and location of the major plants is given in Table III-5 below.

Table III-5

Major 1	Enterprises	in	the	Textiles	and	Fibers	Industry
		<u>.</u>					

Name of Enterprise	Location	Employment (Persons)	Annual Capacity
1. Akaki Textiles Factory	Akaki Town, Central Region	5,000	36 mil.sg.m dyed & printed fabrics
2. Dire Dawa Textiles Factory	Dire Dawa Town, Eastern Region	6,000	40 mil.sq.m dyed & printed fabrics
3. Bahir Dar Textiles Factory	Bahir Dar Town, Northern Region	3,000	20 mil.sq.m. dyed & printed fabrics
4. Debre Berhan Wool Factory	Debre Berhan Town, Northern Region	800	694,000 pcs. of blankets

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	Name of Enterprise	Location	Employment (Persons)	Annual Capacity
5.	Combolcha Textiles Factory	Combolcha Town, Northern Region	3,000	22 mil.sq.m dyed & prin⁺ed fabrics
6.	Awasa Textiles Factory	Awasa Town, Southern Region	1,500	12 mil.sq.m gray fabrics & 36 mil.sq.m. dyed & printed fabrics
7.	Arba Minch Textiles Factory	Arba Minch Town, Southern Region	1,500	28 mil.sq.m. gray fabrics
8.	Ethio-Japanese Synthetic Textiles Factory	Modjo Town, Central Region	700	5 mil.sq.m. nylon fabrics

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

The gross value of production of the sub-sector was about Birr 403 million in 1989/90 fiscal year. This was about 22% of the total manufacturing output. However, the present gross value of production of the sub-sector is expected to be higher than the figure indicated above, mainly because of improved capacity utilization.

The Resource Base

The major inputs of the textile industry are cotton, nylon yarn, wool, acrylic yarn, kenaf and jute fibers, chemical dyestuff, and batching oil. A large portion of cotton, sisal and some chemicals is locally supplied. All other major inputs are imported. Although there was a good local supply of cotton during the mid-1980s and the previous years, it has now significantly declined and, as a result, large quantities of cotton are being imported. Some data on the quantity of major raw materials consumed during 1992/93 fiscal year by about 28 major enterprises in the sub-sector are given in Table III-6.

Table III-6 <u>Major Raw Materials Consumed by Textile and Fiber</u> <u>Enterprises During 1992/93 Fiscal Year</u>

Raw Material	Quantity Consumed (tonnes)			
	Unit of Measure	Local	Imported	Total
1. Cotton yarn	tonnes	271	39	310
2. Polyester fibre	۲ı	-	222	222
3. Jute fibre		-	2,937	2,937
4. Sisal leaves	11	10,881	~	10,881
5. Wool (waste)	11	2	1,823	1,825
6. Acrylic yarn	11	13	311	324
7. Cotton (lint)	11	10,997	3,019	14,016
8. Nylon yarn	11	-	214	214
9. Chemical Dyestuff	ur	719	643	1,362
10. Batching oil	11	-	115	115

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Recent Trends

All of the state-owned enterprises in this subsector used to be managed under the now dissolved National Textiles Corporation. Presently, the enterprises are supervised by boards of management for which three members are appointed by the Government and two elected by labour. The enterprises have been given wide antonomy in deciding their product mix, selecting sales outlets and sources of raw materials, and fixing prices.

The Government of Ethiopia nas already started privatizing some state enterprises such as hotels, department stores, retail shops and few industries. It is expected that the privatization process would eventually include also state enterprises in the textile and fibre sub-sector. However, no privatization measure has been taken in the sub-sector so far.

<u>Constraints</u>

lo the sub-sector are major constraints The increasing prices of raw materials, competition from imports, lack of experience in operating i r overmanning, and The price of most raw materials has competitive markets. For instance, the price of cotton has increased manyfold. increased from Birr 3.50/kg in 1992 to Birr 11.50/kg in 1995 mainly due to the devaluation of Birr.

Both legally imported and contraband garments are entering the country in large volumes. Foreign garments are low priced and much superior in quality. As a result, they pose stiff competition to the local garment producers and tailors.

Almost all of the state-owned enterprises are

overmanned, mainly because of the policy of the previous regime which had favoured employment irrespective of the profitability of an enterprise. Reducing the number of employees has now become necessary for the competitiveness of the enterprises, although its social consequences may be unfavourable. The state-owned enterprises used to sell their products to state-owned distribution companies at fixed prices. They have no experience of operating in competitive market environment where prices are changing based on market conditions.

Prospects for further Development

Ethiopia is an agricultural country with a big potential for development. The large water resource of the country which could be used for irrigation and power generation is not yet sufficiently exploited. Only 15-20% of the arable land (65% of the country's total area) is under cultivation and only 2% (1.2 billion kwh/year) of the country's substantial hydro-electric potential (60 billion kwh/year) is being utilized.

Cotton, one of the major raw materials for the textiles industry, can be grown in large commercial farms in many parts of the country. However, due to the centrally planned and controlled economic policy of the Dergue Regime, private investment especially in the agricultural sector was prohibited. It is expected that, with the new economic policy that encourages private investment, commercial farming, including cotton plantations, would expand in the short-run. This would encourage the development of the textile industry in the country.

There is a good supply of cheap semi-skilled labour, which can be easily up-graded to skilled labour. The

accumulated manufacturing experience in the sub-sector is also quite significant. It has to be noted that all of the manufacturing enterprises in the sub-sector are wholly run by Ethiopian managers, engineers and technicians.

Ethiopia is a member country of COMESA (Common Market for Eastern and Southern African Countries) which incorporates about 20 countries. Textile products are some of the major imports of these countries. Therefore, there is a huge export potential for the Ethiopian textile industry to export its products to these countries.

C. LEATHER AND FOOTWEAR SUB-SECTOR

Status

The leather and footwear sub-sector is a fairly well developed industrial sub-sector. The main products of the sub-sector are semi-processed skins, crust hides, wet blue hides, leather shoes, boots, canvas and rubber shoes, plastic footwear, leather upper and leather lining, and leather sole. The domestic production capacities employed to manufacture these products are shown in Table III-7, below.

Table III-7

Production Capacities of Main Leather & Footwear Products

Product	Unit of Measure	Annual Production
1. Semi-processed skins	,0 00 bca	11,000
2. Crust hides and wet blue hides	'000 ng.m.	11,000

Product	Unit of Measure	Annual Production Capacity
3. Leather shoes and boots	pairs	2,823,400
4. Canvas and rubber shoes	pairs	4,902,000
5. Plastic footwear	pairs	300,340
6. Leather upper and liming	pairs	21,440
7. Leather sole	tonnes	370

Most of these products, including footwear, are produced both by private enterprises and state-owned enterprises. The major enterprises in the industry are Awash Tannery, Ethiopian Tannery, Addis Ababa Tannery, Combolcha Tannery, Modjo Tannery, Ethiopian Pickling & Tanning, Anbassa Shoe Factory, Ethiopian Canvas and Rubber Shoe Factory, Tikur-Abbay Shoe Factory and Universal Leather Articles Factory. All the major enterprises are owned by the state. Basic information on these enterprises is given in Table III-8 below.

Name of Enterprise	Location	Employment (persons)	Annual Capacity
1. Awash Tannery	Addis Ababa	600	Soaking capacity - skins 3 million pcs - hides 240,000 pcs
2. Ethiopian Tannery	Modjo Town Central Region	700	Soaking capacity - skins 3.6 million pcs - hides 360,000 pcs
3. Addis Ababa Tannery	Addis Ababa	250	Soaking capacity - skins 600,000 pcs - hides 950,000 pcs
4. Modjo Tannery	Modjo Town, central region	350	Soaking capacity - skins 2.3 million pcs
5. Ethiopian Pickling & Tanning	Addis Ababa	250	Soaking capacity - skins 2.7 million pcs
6. Combolcha Tannery	Comblocha Town, Northern Region	150	Soaking capacity - skins 1.2 million per
7. Anbassa Shoe Factory	Addis Ababa	N.A.	800,000 pairs of shoes
8. Ethiopian Canvas & Rubber Shoe Factory	11	800	800,000 pairs of shoes
9. Tikur Abbay Shoe Factory	n	700	1,200,000 pairs of shoes
10. Universal Leather Articles Factory		N.A.	N . A .
Source: (Based on info 1999)	ormatiion obtaans	troja the	TOUDES I A SO

<u>Table III-8</u> <u>Major Enterprises in the Leather and Footwear Industry</u>

There is a large number of privately owned enterprises in the sub-sector. Most of them are small scale footwear factories and leather garment production plants.

With the exception of Ethiopian Tannery, Modjo Tannery and Combolcha Tannery, all of the major enterprises are located in Addis Ababa. The Ethiopian Tannery is located about 90 kms south east of Addis Ababa. Modjo and Combolcha Tanneries are located in the towns or Modjo, 70 kilometres south-east of Addis Ababa, and Combolcha 380 kilometres north of Addis Ababa. Privately owned enterprises are mainly concentrated in Addis Ababa.

The gross value of production of the sub-sector was about Birr 290 million in 1992/93 fiscal year representing 11% of the total manufacturing output.

The Resource Base

The leather and footwear industry is a resource based industry. The major raw materials of the industry are sheep and goat skins and hides. As Ethiopia has the largest livestock population in Africa, these raw materials are abundantly available locally.

Different chemicals such as salt and chrome and other auxiliary supplies are required for the operation of the enterprises in the sub-sector. Most of these inputs are imported mainly from European countries. The quantity of major raw materials consumed by the leather and footwear industry during the 1992/93 fiscal year is shown in Table 111-9.

Table III-9

Major Raw Materials Consumed by the Leather and Footwear Industry During the 1992/93 Fiscal Year

Major Raw Material	Unit of Measure	Qua	antity Consum	ned
		Local	Imported	Total
Sheep and goat skin	' 000	7,168	-	7,168
Hides and skins	Tonnes	3,310	-	3,310
Leather upper	'000sq.ft.	2,874	-	2,874
Leather lining	17 17	190	-	190
Leather Sole	Tonnes	46	-	46
Chemicals	Tonnes	2,311	5,129	7,440

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Recent Trends

The leather and footwear sub-sector is a moderately growing sub-sector. The gross value of production of the subsector was about Birr 240 million in 1987/88. This figure had risen to Birr 290 million in 1992/93. This is an increase of about 20% within five years.

The sub-sector is a leading exporter of manufactured products. The value of exported products was Birr 135 million in 1992/93 fiscal year representing 17% of total exports. Most of the products are exported to the United Kingdom, Italy, Japan, U.S.A., Germany, Spain and Greece.

Prospects for further Development

Ethiopia stands first in Africa and tenth in the world in terms of the size of livestock population. The livestock population of Ethiopia is estimated at about 70 million heads. Ethiopia exports a large quantity of hides, skins and live animals. Hides and skins are the country's highest export earning products next to coffee. The products being exported so far are mainly semi-processed skins and hides. There is a big unexploited potential of producing finished leather and leather articles for the export market. Producing finished leather and leather articles would increase the value added and could earn large amounts of foreign exchange to the country.

There is a good supply of cheap semi-skilled labour, which can be easily upgraded to skilled labour. The Leather and Leather Products Institute, which is mainly engaged in providing training to the leather and leather goods industry of the Eastern and Southern African countries, is located in Addis Ababa. There are also a number of local training institutions which may assist is upgrading the skill of labour employed in the sub-sector.

The accumulated manufacturing experience in the subsector, especially in the leather footwear manufacturing branch, is also quite significant. This experience, together with foreign know-how, can be easily tapped and used to produce high quality leather goods, such as shoes and leather garment, for the export market.

D. THE WOOD AND WOOD PRODUCTS INDUSTRY

This industry compases the industrial sub-branches of saw-mills, planing and other wood works, and manufacture of furniture and fixtures. The main products manufactured in the industry are plywood, chipboard, household and office furniture, and fixtures. The production capacities employed to manufacture these products is as shown in Table III-10 below.

Table III-10

Production Capacities of Main Wood and Wood Products

Product	Unit of Measure	Annual Production Capacity
1. Timber	Cub. meters	7,100
2. Plywood	17	4,500
3. Chipboard	11	14,200
4. Furniture & fixture	'000 Birr	7,600

Most of the enterprises in the sub-sector are small privately-owned wood workshops engaged in manufacturing household and office furniture. Timber, plywood and chipboard manufacturing enterprises are relatively of larger scale and are mostly owned by the State. All of the major enterprises are located in Addis Ababa. Most of the saw-mills are located in the southern and western parts of the country where large quantities of timber are available. The capacities, location, and employment of the major enterprises in the sub-sector arc given in Table 111-11.

<u>Table III-11</u>

Major Enterprises in the Wood and Wood Products Industry

Name of Enterprise	Location	Annual Capacity
1. Ethiopian Plywood Enterprise	Addis Ababa	4,500 m ³ plywood
2. Saw Mill & Joinery Production & Marketing Enterprise	Head Office in Addis Ababa, Saw Mills in South & West	6,400 m ³ plywood
3. ECAFCO	Addis Ababa	Birr 12 million
 Finfinne Furniture Factory (3F) 	Addis Ababa	Birr 6 million
5. Warka Furniture Factory	Addis Ababa	Birr 5.3 million
6. Wanza Wood Works	Addis Ababa	Birr 6 million
7. Blue Nile Furniture Factory	Addis Ababa	Birr 5 million

Source: (Based on information obtained from the enterprises)

The gross value of production of the sub-sector was Birr 53 million in 1992/93 fiscal year. This works out to about 2% of the total manufacturing output.

The Resource Base

The major raw materials required are chipboard, formaica, log, plywood and veneer. Except veneer, which is imported in large quantities, almost all of the major raw materials are locally available. However, the local supply is increasingly dwinoling because of deforestation. The quantity of major raw materials consumed by the industry during the 1992/93 fiscal year is given in Table III-12.

<u>Table III-12</u>								
Major	Raw	Materials	Consume	d by	<u>the</u>	Wood	and	Wood
Pro	duct	s Industry	During	1992	/93	Fiscal	Yea	ar

Major Raw	Unit of	Quantity Consumed		
Materials	Measure	Local	Import	Total
1. Chipboard	pcs	9,987	-	9,997
2. Formaica	pcs	1,362	100	1,462
3. Plywood	pcs	16,140	-	16,140
4. Veneer	sq.m.	46,986	236,471	283,457
5. Log	cub.m.	25,042	-	25,042

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Recent Trends

There has not been much change in the total value of production during the past five years, although the volume of production of timber and plywood has sharply decreased by about 50% to 75%. There is no export production in the subsector. Moreover, there are no major new or expansion projects being undertaken at the moment.

Constraints

The major constraint in the sub-sector is shortage of raw materials. Because of the diminishing forest resource of the country, it has become very difficult to supply the enterprises with the required quantities of timber and log. There is also a margeting problem in case of certain wood products as a result of competition from imports.

Prospects for Future Development

The wood and wood products industry is a forest resource-based industry. At the beginning of the century, the forest covered land of Ethiopia was estimated at about 40%. However, due to the high rate of deforestation that went on unchecked over the years, the forest-covered land remaining now is estimated at only 3%. As a result, the supply of timber has become increasingly scarce. Currently, some effort is being made both by the Government and some NGOs working on community development to reverse the situation. There are some afforestation and commercial forestry programmes pursued in some parts of the country which, if sustained, may be able to ensure steady supply of wood to the enterprises in the subsector.

Urban centres are the major consumers of the products of wood and wood products industry. At present the urban population is estimated at about 11 million and the growth rate is about 6% per annum. This high growth rate coupled with the rapid urbanization process and formation of business establishments creates a high domestic demand for furniture and construction materials manufactured from wood.

E. PULP AND PAPER, PRINTING AND PUBLISHING INDUSTRIES

<u>Status</u>

The major products of the pulp and paper industry are printing and writing paper, duplicating and typing paper, exercise books, tissue and sanitary paper, and corrugated boxes. The enterprises in the printing and publishing industrial branch provide printing services. The production capacities employed to manufacture these products are given in Table III-13.

Table III-13

Production Capacities of Main Products of the Pulp & Paper, Printing & Publishing Industries

Product	Unit of Measure	Annual Production Capacity
1. Printing & writing paper	tonnes	25,000
2. Duplicating & typing paper	tonnes	8,100
3. Exercise books	'000 pcs	40,000
4. Tissue & sanitary paper	'000 bundles	11,000
5. Corrugated boxes	tonnes	22,000
6. Printing (service)	'000 Birr	92,000

Most of the above products are manufactured by state enterprises. Some products such as exercise books, tissue and sanitary paper and printing service are produced or delivered both by private and public enterprises. There are a lot of printing presses and publishers in the private sector. However, the enterprises in the private sector are mostly small-scale plants. The state-owned enterprises are relatively of much higher capacity. The major enterprises in the sub-sector are Ethiopian Pulp and Paper Share Co., Yekatit Paper Converting Enterprise, Artistic Printers, Berhanina Selam Printing Press, Bole Printing Press, and Commercial Printing Press. All the major enterprises are owned by the State. With the exception of Ethiopian Pulp and Paper Share Co., all other major enterprises are located in Addis Ababa. The capacities, location and employment of the major enterprises are given in Table III-14 below.

Table III-14

Major Enterprises in the Pulp and Paper, Printing, Publishing and Related Works Industries

Name of Enterprise	Location	Employment	Аллual Capacity
1. Ethiopian Pulp & Paper Share co.	Wonji, close to Nazareth town, 100 km South East of Addis Ababa	740	9500 tonnes
2. Yekatit Paper Converting Enterprise	Addis Ababa	N.A.	N.A.
3. Artistic Printers	Addis Ababa	N.A.	18 million Birr
4. Berhanina Selam Press	Addis Ababa	N.A.	37 million Birr
5. Bole Printing Press	Addis Ababa	440	14 million Birr
6. Commercial Printing Press	Addis Ababa	N.A.	16 million Birr

The gross value of production of the sub-sector was Birr 142 million in 1992/93 fiscal year contributing about 5% of the total manufacturing output.

The Resource Base

The major raw materials required are pulp, boxing paper, waste paper chemicals, and printing and writing paper. Pulp is totally imported, while paper is partly locally produced. A small quantity of boxing paper (corrugated cardboard) and chemicals are also locally produced. The quantity of major raw materials consumed by the sub-sector during the 1992/93 fiscal year is given in Table III-15.

Table III-15

Major Raw Materials Consumed by the Pulp and Paper, Printing, Publishing and Related Works Industries During 1992/93 Fiscal Year

Major Raw Material	Unit of	Qua	ntity Cons	umed
	Measure	Local	Import	Total
1. Pulp	Tonnes	-	8,910	8,910
2. Boxing paper	R	68	1,093	1,16:
3. Waste paper	11		-	
4. Chemicals	n	10	6,537	1,124
5. Paper	n	4,260	6,537	10,797

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Recent Trends

A moderate increase of about 37% is observed in the total value of production during the file years between 1988/89 to 1992/93. The major increase is que to the printing and publishing industry whose production is the darged

significantly during the recent years mainly due to increase in prices and the quantity of printed media.

There are no export production in the sub-sector. The present production could not even satisfy the local demand.

<u>Constraints</u>

The major constraints in the sub-sector are the unavailability of most of the raw materials on the local market and the escalation of prices of imported items. Local production of paper is below 50% of the total consumption, and, therefore, a large quantity is imported. As this requires a substantial amount of foreign currency, acquiring sufficient quantity of paper is often a problem.

Prospects for further Development

All economic and social sectors require paper and paper products and the services of the printing industry. The printing and publishing industry itself is a major consumer of Large quantities are consumed by the horticultural paper. farms for packaging purposes. The educational sector requires exercise books and paper for writing, typing, duplicating and printing. Products such as tissue paper and sanitary mapkins, which are required for personal hygiene, are similarly in high demand. With the high growth rate (more than 3% per amoum) of with the increasing population coupled rate of the urbanization and industrialization, it is expected that the demand for the products and services of the sub-sector would grow at a fast rate.

Ethiopia had a lot of woodland, although what remains of it at present is very small. Still there exists

the possibility for recovering this resource partly through large scale or commercial foresting. Trials in forestry show that the climate is so favourable that some trees that may take 50 years to grow to maturity in Europe can reach the same level within only 20 years. Thus a good potential exists for domestic production of pulp which is a very essential raw material for the sub-sector.

F. THE CHEMICAL AND ALLIED INDUSTRY

<u>Status</u>

The main products manufactured by the chemical and allied industry are soap, carbon dioxide, oxygen, paints, capsules, tablets, antibiotics, syrup, ointment, varnishes and lacquers, tyres and tubes, thermoplastic goods, battery cells, foam and candles. The domestic production capacities employed to manufacture these products are shown in Table III-16 below.

Table III-16Production Capacities of Main Chemical Products

Product	Unit of Measure	Annual Production Capacity
1. Soap	tonnes	25,000
2. Carbon dioxide	tonnes	1,400
3. Oxygen	cub.metres	250,000
4. Paints	'000 litres	3,200
5. Varnishes & lacquers	'000 litres	540
6. Tyres & tubes	pcn	180,000

Product.	Unit of Measure	Annual Production Capacity
7. Thermoplastic goods	tonnes	1,000
8. Battery cells	'000 pcs	13,500
9. Foam	cubic metres	30,000
10. Candles	tonnes	500
11. Alkyd resin	tonnes	1,100
12. Capsules	'000 pcs	343,000
13. Tablets	'000 pcs	700,000
14. Antibiotics	'000 pcs	13,000
15. Syrup	'000 litres	260
16. Ointment	tonnes	300

Products such as carbon dioxide, oxygen, tyres and tubes, pharmaceutical, medicinal chemicals, and alkyd resin are exclusively manufactured by the public sector state enterprise. In terms of capacity, most of the privately owned enterprises are of small scale in size.

The few major enterprises in the sub-sector, including those under commissioning are Addis Tyre Share Co., Gulelle Soap Factory, Repi Soap (Detergent) Factory, Alkyd Resin Plant, Ethiopian Pharmaceutical Manufacturing Plant, Ethioplactics, Addis Gas & Plactic Crates Factory, Awash Melkasa Aluminum Sulphate and Sulphuric Acid Plant and Zeway Caustic Soda Plant. The last two plants are newly established plants which are being commissioned to start production. All of the major exterprises are owned by the State.

Most of the enterprises in the sub-sector, including the major ones, are located in Addis Ababa. Among the major plants only Melkasa Sulphuric Acid Plant and Zeway Caustic Soda Plant are located out of Addis Ababa in the towns of Melkasa and Zeway, respectively. These two towns are located in the south east and south of Addis Ababa at distances of 115 and 163 kilometres respectively. Plant capacities, employment and location of the major enterprises are given in Table III-17.

Table III-17

Basic Information on the Major Enterprises in the Chemicals Sub-Sector

Name of Enterprise	Location	Annual Capacity
1. Addis Tyre Share Co. ¹	Addis Ababa	200,000 pieces of tyres
2. Gulale Soap Factory	Addis Ababa	7000 tonnes laundry Soap
3. Repi Soap (Detergent) Factory	Addis Ababa	2400 tonnes detergent.
4. Ethiopian Pharmaceutical Manufacturing Plant	Addis Ababa	700 mil. Tablets 340 mil. Capsules 26 mil. pcs of ampules & antibiotics

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The company is under expansion, capacity & employment query are for the expanded plane.

	Name of Enterprises	Location	Annual Capacity	
5.	Ethioplastics	Addis Ababa	900 tonnes polyethlene products	
6.	Addis Gas and Plastic Crates	Addis Ababa	500,000 pcs of crates 1.4 mil.kg CO ₂ gas	
7.	Awash Melkasa Aluminum Sulphate & Sulphuric Acid Plant ²	Melkasa	10,000 tonnes, Sulphuric Acid 14,000 tonnes, Aluminum Sulphate 5,000 tonnes,Oleum	
8.	Zeway Caustic Soda Plant ²	Zeway	10,000 tonnes, at 45.5% conc.	
9.	Alkyd Resin Plant	Addis Ababa	1,100 tonnes, Alkyd Resin	
Source: (Based on information obtained from the respective				

enterprises)

The gross value of production of the sub-sector was Birr 249 million in 1992/93 fiscal year.

The Resource Base

The major raw materials required by the sub-sector are caustic soda, natural and synthetic rubber, sodium compounds, tallow and fatty acid, and active pharmaceutical ingredients. A large quantity of these materials are imported at the local supply is of a small quantity and in some cases non-existent. The quantities of major raw materials consumed by the sub-sector during 1992/93 fiscal year are given in

New plants which are been commissioned to start production.

Table III-18.

Table_III-18

<u>Major Raw Materials Consumed by the Chemical</u> <u>Sub-Sector During 1992/93 Fiscal Year</u>

	Unit of	Quant	ity Consumed	
	Measure	Local	Import	Total
1. Caustic Soda	tonnes	324	1,179	1,503
2. Natural & Synthetic Rubber	Ħ	-	2,536	2,536
3. Sodium Compound	17	1,186	293	1,479
4. Tallow	۲T	638	2,958	3,596
5. Fatty Acid	17	-	2,744	2,744

Source: CSA : Results of the survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Recent Trends

The gross value of production of the sub-sector has doubled during the five year period between 1988/89 and 1992/93. The gross value was Birr 131 million in 1988/89 and increased to Birr 249 million in 1992/93. However, this sharp increase is not due to a corresponding increase in the volume of production. It is mainly due to increase of prices as a result of the devaluation of the Birr.

There is no export production in the sub sector at present. However, as the newly established chemical plants become operational and start to look outwards, it is expected that there will be some production for export.

> Major investments ar * ing undertaken on new plants expanded of the second ends. As mentioned above,

Awash Malkasa Aluminum Sulphate and Sulphuric Acid Plant and Zeway Caustic Soda Plant are under commissioning. Addis Tyre Expansion Project is also close to completion. In addition, a pesticide formulation plant and a pharmaceutical plant are under construction. Basic information on the major projects in the sub-sector indicating location, investment magnitude and employment is given in Table III-19.

Table III-19Investment Projects in the Chemical Sub-Sector

	Name of Project	Location	Investment '000 Birr	Employment
1.	Awash Melkasa Aluminum Sulphate & Sulphuric Acid Plant	Awash Melkasa Town	55,000	300
2.	Zeway Caustic Soda Plant	Zeway Town	47,000	400
3.	Adami-Tullu Pesticides Formulation Plant	Adami -Tullu Town	12,000	58
4.	Addis Tyre Expansion	Addis Ababa	97,000	160
5.	Adigrat Pharmaceutical Plant	Adigrat, Tigray Region	N.A.	N.A.

Source: (Based on information obtained from the respective project offices)

Two of the investment projects, Awash Melkasa Aluminum Sulphate and Sulphuric Acid Plant and Zeway Caustic Soda Plant, produce busic chemicals such as sulphuric acid and caustic soda which are input materials for the chemical industry. It is expected that the establishment of these plants would bring significant structural change and production capacity to the sub-sector.

<u>Constraints</u>

Lack of most of the input materials on the local market is the major problem of the enterprises in the subsector. Shortage of working capital to finance purchase and stocking of imported items is also a major problem of most of the small and medium enterprises in the sub-sector.

Prospects for further Development

The basic sources of raw materials for the chemicals industry include fossil fuels such as crude oil, natural gas and coal; non metallic industrial minerals such as limestone, sodium chloride, potassium chloride, pyrite and phosphate rocks; agricultural products such as maize (for starch and its derivatives), and biomass; and forestry products such as rubber tree. The potential exists for developing most of these materials locally. However, mineral exploration has not yet been widely conducted in the country. Based on the existing limited recomaissance studies, it is expected that most of the minerals required for industrial processing could be developed locally.

The agricultural and forestry development potential of Ethiopia is also very high. In addition, there is a good supply of electric power in many parts of the country. Cheap and semi-skilled labour is abundantly available. Thus there are a number of favourable factors which are conducive for the development of the sub-sector. Moreover the use of chem.cals in the agriculture and other sectors of the economy is increasing at a very high rate. This indicates that the size and growth of the domestic market is guite substantial.

G. NON-METALLIC MINERALS (BUILDING MATERIALS) INDUSTRY

<u>Status</u>

The non-metallic minerals industry consists of mainly the building materials industrial branch which manufactures cement and cement products, lime, structural clay products, and glass and glass products. Recently, the production of ceramic products such as tableware, sanitary ware and wall tiles has started in a newly established plant. The production capacities employed to manufacture these products are given in Table III-20.

Table III-20

Domestic Production Capacities of Main Products of the Non-Metallic Mineral Industry

Product	Unit of Measure	Annual Production Capacity
1. Cement	tonnes	670,000
2. Cement blocks & tubes	'000 pcs	3,400
3. Cement floor tiles	sq. meters	221,000
4. Bricks of clay	'000 pcs	31,000
5. Lime	tonnes	5,300
6. Glasses	'000 pcs	1,400
7. Glass bottles	'000 pcs	17,000
8. Ceramic tiles & wares	tonnes tonnes tonnes	3,000 wall tiles 2,000 sanitary ware 1,000 table wares

Most of the products in the industry are manufactured by state enterprises. Only cement blocks, cement tubes and cement floor tiles are manufactured in targe quantities by numerous small scale producers in the private sector. The major enterprises in the sub-sector are Muger Cement Factory, Addis Ababa Cement Factory, Addis Ababa Glass Factory, and Tabor Ceranics Factory. All of these major plants are owned by the State.

Most of the enterprises in the sub-sector are located in Addis Ababa. Among the major enterprises, Muger Cement Factory and Tabor Ceramics Factory are located out of Addis Ababa in the western and southern parts of the country respectively. Annual capacities, location and employment level of the major enterprises are given in Table III-21.

Table_III-21

Major Enterprises in the Non-Metallic Industry

Name of Enterprise	Location	Employment	Annual Capacity
1. Muger Cement Factory	Mugar, 105 kms west of Addis Ababa	800	600,000 tonnes Cement
2. Addis Ababa Cement Factory	Addis Ababa	600	70,000 tonnes Cement 400,000 pcs. of asbestos sheet
3. Ethio & Burayyu Bricks Factory	Addis Ababa	470	7.5 million pcs.
4. Addis Ababa Glass & Bottles Factory	Addis Ababa	300	17 million bottles 1.42 million glasses
5. Tabor Ceramics	Awasa, 230 kms, south of Addis Ababa	650	3,000 Wall tiles 2,000 Sanitary wares 1,000 Table wares

Source: (Based on information obtained from the respective enterprises)

The gross value of production of the sub-sector was Birr 128 million in 1992/93 fiscal year or 5% of the total manufacturing output. The major raw materials needed are limestone, gypsum, kadin, gravel, cullet, clay, cement, marble, pumice, sand, silica sand and soda ash. All the major raw materials are locally available. It may be noted here that this is the only industrial sub-sector where all major raw materials are locally available. The quantity of major raw materials consumed during the 1992/93 fiscal year is shown in Table III-22 below.

Table III-22

Major Raw Materials Consumed by the Non-Metallic Minerals Industry During 1992/93 Fiscal Year

Major Raw	Unit of	Qu	antity Consum	ed
Material	Measure	Local	Import	<u> </u>
1. Limestone	tonnes	561,948		561,948
2. Gypsum	tonnes	30,182	-	30,182
3. Pumice	cub. meters	4,943		4,943
4. Sand	cub. meters	12,589	_	12,569
5. Silica Sand	tonnes	1,910	_	1,910
6. Soda Ash	tonnes	529	-	529
7. Gravel	cub. meters	2,473	-	2,473
8. Cullet Flint	tonnes	3,557		3,557
9. Clay	cub. meters	126,284	-	126,284
10. Cement	tonnes	6,240	-	6,240
11. Marble	tonnes	229	-	229

Source: C.S.A.: Results of the Survey of Manufacturing and Electricity Industries 1992/93, Addis Ababa, August 1994.

Recent Trends

The gross value of production of the sub-sector was Birr 88 million in 1988/89. After five years, this rose to Birr 128 in a 1981. The increase of gross ve production is mainly attributed to the increase in the prices of the products.

There is no export production in the sub-sector at present. However, the newly established ceramics plant is expected to start export production as soon as it has established itself in the local market.

There are only few investments and expansion schemes presently underway. A major investment is under implementation to increase the production of cement in Tigray Region in the northern part of the country.

<u>Constraints</u>

Low capacity utilization is a major problem among many of the enterprises in the sub-sector. This is mainly due to two reasons. The first reason is the old age of plant and equipment in the sub-sector. The second reason is the sharp fluctuation of demand stemming from the cyclical nature of the construction industry. The plant and equipment of enterprises such as Addis Ababa Cement Factory and Senkelle Lime Plant are very old and are badly in need of renovation.

Prospects for further Development

A number of studies conducted so far show that there are a lot of mineral deposits in the country that could be used for the development of various non-metallic minerals for domestic and export markets. In particular, it is reported that limestone, the major raw material required for the production of cement and lime, is found in almost every region of the country in abundant quantities.

There is also a good supply of cheap semi-skilled

labour that can be easily trained. The accumulated managerial and technical knowledge in the production of items such as lime, cement, cement-made products and bricks is quite significant.

Urban centres and construction projects are the major consumers of the products of the non-metallic industry. Urbanization is growing at a high rate in the country. Construction projects are also starting to show high rates of growth with increasing liberalization of the economy.

Since there is a substantial demand for non-metallic mineral products in the Common Market for Eastern and Southern Africa (COMESA), of which Ethiopia is a member, there exists a potential for exporting products of the non-metallic mineral industry to the member countries of the Region.

H. BASIC METALS AND ENGINEERING INDUSTRIES

<u>Status</u>

The industrial branches categorized under this subsector are iron and steel, non-ferrous metals, and machinery and equipment manufacturing (engineering) industries. Iron and steel, and non-ferrous industries are almost non- existent in Ethiopia. There is only one enterprise engaged in manufacturing iron bars from steel scraps and billets. A few steel foundries operate in connection with manufacturing such items as spare parts and machine units.

Regarding non-ferrous metals such as aluminum, brass and bronze, the production that exists is only of very small (cottage industry) scale. Moreover, it is based on scrap collection and remelting in cupola furances. Thus, there is no significant non-ferrous metals production as such. On the other hand, much industrial activity is underway in light engineering including metal working, parts manufacturing and vehicle assembly. Products manufactured by the enterprises in the light engineering branch include nails, wires, corrugated/flat iron sheets, umbrellas, cans, sickles, pipes, tractors, trucks, medium buses, pumps, and various spare parts and tools. The production capacities employed to manufacture the items mentioned are given in Table III-23, below.

Table III-23Production Capacities of Main Products of BasicFietals and Engineering Industries

Product	Unit of Measure	Annual Production Capacity
1. Reinforgement bars	tonnes	15,000
2. Nails	tonnes	800
3. Wires	tonnes	3,400
4. Corrugated/flat iron sheets	t onnes	21,000
5. Umbrellas	,000 bca	700
6. Cans	'000 pcs	3,000
7. Sickles	'000 pcs	700
8. Pipes	Lonnes	6,300

Product	Unit of Measure	Annual Production Capacity
9. Tractors	No	1,000
10. Trucks & Medium Buses	No	600 to 700
11. Pumps	pcs	400
12. Various spare parts & tools		
. Industrial spare parts	tonnes	4,500
. Hand tools	'000 pcs	1,500
. Cuttlery	'000 pcs	600

All the main products, except trucks and medium buses, are manufactured by state enterprises. The products manufactured by the private sector are mainly water tanks, doors, windows and furniture made from fabricated steel products. The private sector also manufactures various types of machinery and equipment, including bakeries, oil mills and soap making plants. However, all of these are produced in small workshops on job-order basis and do not constitute significant production volume.

The major enterprises in the sub-sector are Ethiopian Iron and Steel Foundry, Akaki Spare Parts and Hand Tools Factory, Kalitti Metal Factory, Akaki Metal Factory, Nazareth Tractor Factory, Akaki Pump Factory, and Automotive Manufacturing Company of Ethiopia (AMCE). With the exception of AMCE, which is jointly owned by the Government of Ethiopia and the FIAT company of Italy, all the major enterprises are owned by the State.

Most of these enterprises are located in Addis Ababa and its suburban town of Akaki. The Nazaroth Tractor Factory conclusted in two conclusions for a formation of Addis Ababa. Annual capacities, location and employment level of the major enterprises are given in Table III-24.

Table III-24

Major Enterprises in the Basic Metals and Engineering Industries

Name of Enterprise	Location	Employment	Annual Capacity
1. Ethiopian Iron an Steel Foundry	nd Akaki Town, 25 kms south of Addis Ababa	480	15,000 tonnes (Rolling mill)
2. Akaki Spare Parts and Hand Tools Factory	s Akaki Town	980 at full cap.	4,500 tonnes spare parts 1.5 mil hand Tools 0.6 mil cutlery
3. Kaliti Metal Factory	Addis Ababa	350	60,000 tonnes, steel products .,600 hammer mills
4. Akaki Metal Factory	Akaki Town	250	21,000 tonnes corrugated iron sheet 12,000 tonnes pipes
5. Nazareth Tractor Factory	Nazareth Town	150	1000 tractors
6. Akaki Pump Factor	ry Akaki Town	175	1,500 pcs of centrifugal pumps and 330 hand pumps
7. AMCE	Addis Ababa	240	600 700 trucks and buses

enterprises)

The gross value of production of the sub-sector was Birr 176 million in 1992/93 fiscal year.

The Resource Base

The major raw materials consumed are steel billet, scrap iron/steel, steel sheets, wire rod, zinc, aluminum, tin plate and galvanized coils. Except scrap iron/steel, all the major raw materials are imported from abroad. The quantity of major raw materials consumed during 1992/93 fiscal year is shown in Table III-25 below.

Table III-25

Major Raw Materials Consumed by the Basic Metals and Engineering Industries During 1992/93 Fiscal Year

Major Raw Material	Unit of Measure	Quar	ntity Consu	imed
		liocal	Import	Total
1. Steel billet	tonnes	-	5,900	5,900
2. Scrap iron/steel	tonnes	700	-	700
3. Steel sheets	tonnes	-	6,374	6,374
4. Wire rod	tonnes	-	2,500	2,500
5. Zinc	tonnes	-	.302	302
6. Aluminum	tonnes	-	126	126
7. Tin plate	'000 sheets	-	1,058	1,058
8. Galvanized coils	tonnes	4	1,546	1,546

Electricity Industries 1992/03, Addis Ababa, August 1994.

Recent Trends

The gross value of production of the sub-sector showed sharp decrease between the years 198:/90 and 1991/92. However, it significantly increased in 1992/93 through did not fully recover to 1988/89 level.

So far there is no significant export production in the sub-sector, although enterprises such as Akaki Spare Parts and Akaki Pump Factory could export some of their products to the neighboring countries and other member countries of COMESA.

There are no large investment projects being undertaken in the sub-sector. The only significant investment project is a foreign sponsored project approved by the Investment Office of Ethiopia in 1994 which envisages the establishment of light vehicles assembly plant. The total investment cost of the project is about Birr 24 million. There is also a Government plan to install a steel rolling mill of 90,000 tonnes per annum capacity in one of the existing enterprises which were originally designed to produce military hardware and are now being converted to produce civilian products.

The institutional infrastructure of this sub-sector has shown considerable development with the establishment of Engineering Design and Tools Centre in 1994. The objectives of this institution are tool design and tool making, equipment design and prototype manufacturing, and provision of training to tool and equipment designers and manufacturers. The Government has also recently established another institution called Basic Metal and Engineering Industry Burcau under the Office of the Prime Minister with a mandate to follow up and cater for the development of the sub sector.